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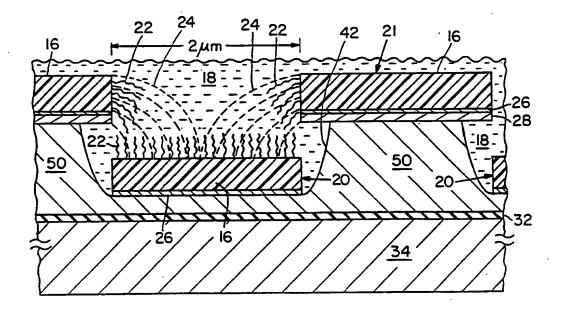
#### **Published**

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

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(54) Title: OPTICAL AND ELECTRICAL METHODS AND APPARATUS FOR MOLECULE DETECTION



#### (57) Abstract

A method and apparatus are disclosed for identifying molecular structures within a sample substance using a monolithic array of test sites formed on a substrate upon which the sample substance is applied. Each test site includes probes formed therein to bond with a predetermined target molecular structure or structures. A signal is applied to the test sites and certain electrical, mechanical and/or optical properties of the test sites are detected to determine which probes have bonded to an associated target molecular structure.

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 93/03829

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According t	o International Patent	Classification (IPC) or to both National G 01 N 33/543 C	Classification and IPC	/07
II. FIELDS	SEARCHED	Minimum Docum	nentation Searched?	
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		Documentation Searched othe to the Extent that such Documents	er than Minimum Documentation s are Included in the Fields Searched <sup>®</sup>	
III. DOCUM		D TO BE RELEVANT <sup>9</sup>		1
Category °	Citation of D	ocument, <sup>11</sup> with indication, where approp	riate, of the relevant passages 12	Relevant to Claim No.13
X	NV) 13 see pa 28, li	015070 (AFFYMAX TECHN December 1990 cited i ge 20, line 6 - page 2 ne 14 - line 36 see pa ne 28; claim 22	In the application 22, line 24 see page	1,10,50
X Y	Decemb see co column - colu	402917 (BIOCIRCUITS ( per 1990 Plumn 3, line 57 - colu 17, line 7 - line 57 s mm 11, line 16 see col 21, line 25; figures	umn 4, line 27 see see column 9, line 58 lumn 16, line 56 -	1,10,22 2
° Specia	al categories of cited de	ocuments: 10	"T" later document published after the internor priority date and not in conflict with t	
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Date of the	Actual Completion of	the International Search 1993	Date of Mailing of this International Sec	arca Report :
Internation	al Searching Authority	,	Signature of Authorized Officer	
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International Application No Page 2 PCT/US 93/03829

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A	WO,A,9002327 see page 25, line 13 - page 27, line 35; figures 8-10	3-5
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## INTERNATIONAL SEARCH REPORT

Inte. .ational application No.

PCT/US 93/03829

Box I	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This int	ernational search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1.	Claims Nos.: because they relate to subject matter not required to be scarched by this Authority, namely:
2.	Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3.	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This int	ernational Searching Authority found multiple inventions in this international application, as follows:
Fo	r further information please see form PCT/ISA/206 mailed 27.09.93.
1.	As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.	As all scarchable claims could be searches without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.	As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. X	No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  1-5, 10, 22, 50
Remark	The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

# ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO.

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 16/12/93

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